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ABSTRACT

This study investigates the phenomenon of "Locative Inversion" in Cantonese. The term "Locative Inversion" indicates that the locative phrase (LP) syntactic process in Cantonese and the appears at the sentence-initial position and its logical subject occurs postverbally. It is demonstrated that this Locative Inversion is a widespread syntactic process in Cantonese and the sentence-initial LPs in the Locative Inversion are argued to be subjects that come from the postverbal complement position in the majority of cases. It is also possible to move a preverbal adjunct locative phrase to the subject position in the existential "yau" (have) sentences. This movement hypothesis is crucially dependent on the relative distribution and co-occurrence restrictions between the sentence-initial LPs and their coreferent proform "hai dou" (there). One important observation drawn from the SuperRaising analysis of the sentence-initial locative phrases is that "pro" in Chinese, albeit an A-specifier, will not block A-movement, unlike what is predicted by the theory of Relativized Minimality. (JL)

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LOCATIVE INVERSION IN CANTONESE

Sui-Sang Mok

Abstract: This paper proposes that locative inversion is a widespread syntactic process in Cantonese. The sentence-initial locative phrases in the Locative Inversion sentences are argued to be subjects which come from the postverbal complement position in the majority of cases; but it is also possible to move a preverbal adjunct locative phrase to the subject position in the existential "yau"(have) sentences. This movement hypothesis is crucially dependent on the relative distribution and co-occurrence restrictions between the sentence-initial locative phrases and their coreferent proform "hai dou"(there). One important observation drawn from the SuperRaising analysis of the sentence-initial locative phrases is that "pro" in Chinese, albeit an A-specifier, will not block A-movement, unlike what is predicted by the theory of Relativized Minimality.

I. Introduction

This paper will investigate the phenomenon of Locative Inversion in Cantonese. By Locative Inversion, I mean that in a sentence, the locative phrase (henceforth, LP) appears at the sentence-initial position and its logical subject[1] occurs postverbally. The following are two typical examples.

(1)	(hai)	chong	seung min	fan	jo	go	yan	(hai dou)[2]
	at	bed	top/on	lie	ASP[3]	CL	person	there

"There is a person lying on the bed."

(2)	(hai)	cheung	seung min	gwaa	jo	fuk	waa	(hai dou)
	at	wall	top/on	hang	ASP	CL	picture	there

"There is a picture hanging on the wall."

The interesting things about these sentences are that (i)the locative phrases can be prepositional phrases headed by the preposition "hai"(at/in/on/from) and (ii) some kind of proform "hai dou"(there) can coexist with the LPs although it must occupy a postverbal position in this case.

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The first part of the paper will try to establish the D-structure for sentences like (1) and (2), which are confirmed to be ergative (unaccusative) in nature. The prepositional LPs in the D-structure are claimed to be postverbal complements and they move to the subject position at S-structure. The proform behaves like some kind of resumptive pronoun and is coreferent to the sentence-initial LPs in the S-structure. However, Locative Inversion sentences like (2), which consist of verbs such as "lim"(paste), "gwaa"(hang) and "jong"(install), may also have an accusative reading. In this second interpretation, (2) will have a D-structure where the subject position is occupied by a "pro" instead. The prepositional LP in this context is also hypothesized to originate in the postverbal complement position but it may only undergo movements like preposing and topicalization; hence it will not be a subject in the S-structure.

The proposal of Locative Inversion will entail a different conception of θ-role- and Case- assignment in Cantonese from that of Mandarin as described by Li (1990). Because of this, section V of Part 1 will be devoted to briefly comparing the systems of θ-role- and Case- assignment in Cantonese and Mandarin. I posit that Cantonese should be regarded as SVO both at D-structure and S-structure, and prepositonal phrases in Cantonese can be Case-marked.

Part 2 will, in the first place, give further justification to the argumental status of the LPs in (1) and (2) when they appear in the D-structure. I will compare the extraction behaviour of the LPs with that of duration expressions which are adjunct-like. The comparison is based on Rizzi's(1990) theory of Relativized Minimality which pays particular attention to the asymmetry of arguments and adjuncts with respect to their extraction behaviour. Second, the subjecthood of the sentence-initial LPs in (1-10) is reinforced as they are shown to participate in SuperRaising. One important observation drawn from the analysis of SuperRaising is that "pro" in Chinese, albeit an A-specifier, will not block A-movement, unlike what is predicted by the theory of Relativized Minimality. Third, the movement analysis in Part 1 is extended to the type of existential "yau"(have) sentences that begin with a LP. These sentences are also claimed to have undergone locative inversion and the sentence-initial LPs may come from the postverbal complement position or the preverbal adjunct position. This claim is comparable to Freeze's(1991) crosslinguistic analysis of "have"-structures as locative sentences, but differs widely from Huang's(1987,1989) analysis of those existential "you"(have) sentences in Mandarin that begin with a LP. The last section concludes with a summary of the important generalizations that have been made in this investigation.

II. Theoretical Framework

The general framework of Government and Binding will be employed for the analysis in this paper. Particular reference will be given to the X-bar theory, θ-theory,

Case theory, the Extended Projection Principle and the theory of Relativized Minimality.

III. Prepositional Locative Phrase as Subject

In this section, I will first establish that the prepositional LPs of the following sentences are subjects in the S-structures.

(3) (hai) che leui min cho mun saai di hok saang (hai dou)
at car inside sit full all those student there

"*The car was sat full by the students."

(4) (hai) uk leui min jyu jo saam go feileutban yan (hai dou)
at house inside live ASP three CL Philippine people there

"There are three Philippinos living inside the house."

(5) (hai) kiu haa min kei jo hou do yan (hai dou)
at bridge under stand ASP many people there

"Many people are standing under the bridge."

(6) (hai) baan gung sat leui min lei mai[4] jo go chat lou (hai dou)
at office inside hide ASP CL thief there

"A thief is hiding inside the office."

(7) (hai) mun hau min lim mun saai di gung jai (hai dou)
at door back-side paste full all those pictures there

"All the backside of the door was pasted with those pictures."

(8) (hai) hak baan seung min se jo di ying man ji (hai dou)
at blackboard top/on write ASP some English word there

"Some English words have been written on the blackboard."

(9) (hai) fa yun cheut min jong jo yi sap jan dang (hai dou)
at garden outside install ASP twenty CL lamp there

"There are twenty lamps installed outside in the garden."

(10) (hai) toi seung min baai mun saai faa (hai dou)
at table top/on put full all flower there

"The whole table is occupied with flowers."

Before embarking on the analysis, I would like to make clear the categorial status of the beginning word "hai"(at/in/on/from) in sentences (1-10). The LPs of these sentences can appear between the subject and the VP in other contexts such as the one in

(11).

(11)	Ah Wong	hai	chong	seung min	tai	syu
		at	bed	top/on	read	book

"Ah Wong is reading on the bed."

Since the LP in (11) is in a non-Case position, the noun phrase "chong seung min"(bed-on) is most likely assigned Case by "hai", which is obligatory for the NP. As the LP is not a VP, "hai" must be a preposition, since only verbs and prepositions can assign Case.

In the study of locative inversion in English, which is regarded as some kind of stylistic rule, the sentence-initial prepositional LP is often conceived as a topicalized element (cf. Bower(1976), Coopmans(1989), Rochemont & Culicover(1990)). Xu and Langendoen (1985:5) also regard the sentence-initial LP in sentence (12) in Mandarin to be a topic.

(12)	zhouzi	shang	yau	shu;	chuang	shang	bu	hui	yau	shu
	table	on	have	book	bed	on	not	can	have	book

"On the table there are some books; on the bed there cannot be any books."
(Xu & Langendoen's (21))

There are apparently some signs that the LPs in sentences (1-10) may be considered as topics. Those phrases, with or without the preposition, must be definite in nature. Furthermore, pauses, which some people consider to be diagnostics for topics (although imprecise), may be inserted after the LPs. But these pieces of evidence are by no means conclusive. In fact deeper investigation suggests otherwise.

At least three pieces of evidence can be adduced to show that the sentence- initial LPs in (1-10) display syntactic characteristics that are absent in genuine topics like the ones in (13) and (14).

(13)	go	tiu	yu	(a),	Ah Chan	kam yat	hai	Aberdeen	maai	ge
	that	CL	fish	PART		yesterday	at		buy	PART

"That fish, Ah Chan bought it at Aberdeen yesterday."

(14)	go	gaa	che	(a),	Lou Li	gam jiu	jing	hou	jo
	that	CL	car	PART		this morning	fix	good	ASP

"That car, Lou Li fixed it this morning."

The first piece of evidence is related to the relative order between sentence adjuncts[5] and topics. In Cantonese, sentence adjuncts such as adverbials like "hou m hou

coi" (unfortunately), "hou ho neng"(possibly) and "hou ho sik"(sadly) cannot precede a topic.

(15)* { hou ho neng / possibly / hou ho sik / sadly / hou m hou choi / unfortunately }

gaa	che,	Ah Chan	gam jiu
CL	car		this morning
jung mei	jing	hou	
not yet	jing	hou	

"Possibly/sadly/unfortunately, Ah Chan has not fixed the car this morning."

However, when the adverbials are put before the initial LPs in sentences (1-10), they are still well-formed. Using (4) as an example, we can construct the following sentence.

(16) { hou ho neng / possibly / hou ho sik / sadly / hou m hou choi / unfortunately }

(hai)	uk	leui min	jyu	jo
at	house	inside	live	ASP
saam	rgo	feileutban	yan	(hai dou)
three	CL	Philippine	people	there

"Possibly/sadly/unfortunately, there are three Philippinos living inside the house."

The second piece of evidence comes from the constraint in using correlative conjunctions. Sentences with topics always become ill-formed if they are structured with correlative conjunctions like "m jing ji...jung yau" (not only...but also).

(17)

*m jing ji	gaa	che,	Ah Chan	jing	waai	jo,	
not only	CL	car		fix	bad	ASP	
jung yau	go	cheung,	keui	sai lou	daa	laan	jo
but also	CL	window	he	brother	hit	broken	ASP

"*Not only did that car, Ah Chan ruin, but also that window, his brother broke."

(18)

*?go	sai lou jai	m jing ji	Ah Chan	jung yi,	
CL	child	not only		like	
jung yau	keui	taai taai	dou	hei fun	(keui)
but also	he	wife	also	like	(he)

"*The child, not only does Ah Chan like, but also his wife likes."

The normal ways of expressing similar ideas in (17) and (18) do not involve topicalization and their well-formed counterparts should appear as

(19)	m jing ji	Ah Chan	jing	waai	gaa	che,		
	not only		fix	bad	CL	car		
	jung yau	keui	sai lou	daa	laan	jo	go	cheung
	but also	he	brother	hit	broken	ASP	Cl	window

(20)	m jing ji	Ah Chan	jung yi	go	sai lou jai,		
	not only		like	CL	child		
	jung yau	keui	taai taai	dou	hei fun	(keui)	
	but also	he	wife	also	like	(he)	

In contrast, there are no problems in applying correlative conjunctions to sentences containing sentence-intial LPs.

(21)	m jing ji	(hai)	cheung	seung min	gwaa	jo	fuk	waa	(hai dou)
	not only	at	wall	top/on	hang	ASP	CL	picture	there
	jung yau	(hai)	tin faa baan	seung min	dou	lim	jo	hoi bou	(hai dou)
	but also	at	ceiling	top/on	also	paste	ASP	poster	there

"Not only is there a picture hanging on the wall, but some posters are also pasted on the ceiling."

(22)	(hai)	cheung	seung min	m jing ji	gwaa	jo	fuk	seung,
	at	wall	top/on	not only	hang	ASP	CL	picture
	jung yau	lim	jo	di	hoi bou	(hai dou)		
	but also	paste	ASP	some	poster	there		

"On the wall, a picture is hung and some posters are pasted."

The third piece of evidence is related to the idea that an ordinary topic usually cannot appear immediately after a subordinate clause. This is examplified by (23) and (24).

(23)	*?kam maan	sik	jo	fan	ji hau,	
	last night	eat	ASP	rice	after	
	gaa	che,	Ah Chan	jing	hou	jo
	CL	car,		fix	good	ASP

"*Last night after eating dinner, that car, Ah Chan fixed it."

(24)	*?yu go	Mary	m	lei,	gaa	che,
	if		not	come	CL	car
	Ah Chan	wui	jing	waai	keui	
		will	fix	bad	it	

"*If Mary does not come, that car, Ah Chan will ruin it."

Their well-formed counterparts should involve no topiclaization, as shown in (25) and (26).

(25)

kam maan	sik	jo	faan	ji hau,	Ah Chan	jing	hou	jo	gaa	che
last night	eat	ASP	rice	after		fix	good	ASP	CL	car

"Last night after eating dinner, Ah Chan fixed the car."

(26)

yu go	Mary	m	lei,	Ah Chan	wui	jing	waai	gaa	che
if		not	come		will	fix	bad	CL	car

"If Mary does not come, Ah Chan will ruin the car."

Contrary to ordinary topics, sentences with initial LPs can appear in similar contexts and are well-formed.

(27)

kam maan	sik	jo	faan	ji hau,	(hai)	cheung	seung min
last night	eat	ASP	rice	after	at	wall	top/on
yi ging	gwaa	jo	sap	fuk	waa	(hai dou)	
already	hang	ASP	ten	CL	picture	there	

"Last night after eating dinner, ten pictures had been hung on the wall."

(28)

yu go	Mary	m	lei,	(hai)	tin faa baan	seung min	m
if		not	come	at	ceiling	top/on	not
wui	jong	yi sap	jan	dang	(hai dou)		
will	install	twenty	CL	lamp	there		

"If Mary does not come, twenty lamps will not be installed on the ceiling there."

The above three tests confirm that the sentence-initial LPs cannot be genuine topics. I will now proceed to show that the sentence-initial LPs in (1-10) are subjects. For this purpose, I will argue that they are not adjoined to VP and they must precede INFL. The sentence-initial LPs can precede sentence adverbials and negation markers which are usually regarded as adjunctions to VP or preceding VP since they modify the scope of a VP. (29) and (30) are two examples.

(29)

(hai)	chong	seung min	si si	fan	jo	go	yan	(hai dou)
at	bed	top/on	always	lie	ASP	CL	man	there

"There is a man always lying on the bed."

(30)

(hai)	chong	seung min	mou	yan	fan	(hai dou)
at	bed	top/on	no	man	lie	there

"There is no man lying on the bed."

Some linguists like Zhou (1990:171) consider the adverbial "zongshi"(always) in Mandarin to be adjoined to I'. If I adopt this treatment, it will certainly help to ascertain that the LPs in (1-10) are linked to the [SPEC, IP].

Another supporting fact is that sentence-initial LPs can precede auxiliary verbs which are under the INFL node.

(31)

(hai)	chong	seung min	(dou)	ho yi	fan	leung	go
at	bed	top/on	also	can/may	lie	two	CL
sai lou jai	(hai dou)						
child	there						

"The bed can also allow two children to lie on."

(32)

(hai)	cheung	seung min	(dou)	wui	gwaa	leung	fuk
at	wall	top/on	also	will	hang	two	CL
waa	(hai dou)						
picture	there						

"Two pictures will also be hung on the wall."

There are now only two possible structural positions left for the sentence-initial LPs to attach themselves to---the I' adjunction and the [SPEC, IP]. Since the LPs are obligatory elements, as witnessed in (33), their adjunction to I' is not possible because it is an optional position.[6]

(33)

*gwaa	jo	fuk	waa	(hai dou)
hang	ASP	CL	picture	there

(This is possible only if "hai dou" means "here".)

So the only position that the sentence-initial LPs can occupy in S-structure is the [SPEC , IP], the subject position.

The claim that the sentence-intial LPs are subjects is clearly supported by the fact that these LPs can undergo subject-to-subject raising (cf. Hou(1977), Li (1990)). The LPs can either precede or follow raising predicates like "hou chi"(likely/seem) and "hou ho neng"(possible),[7] suggesting that there is a raising operation involved.

(34)

{ hou chi / likely/seem / hou ho neng / possible }	(hai)	chong	seung min	fan	jo
	at	bed	top/on	lie	ASP
	go	yan	(hai dou)		
	CL	people	there		

"It is likely/possible that a person is lying on the bed."

(35) (hai) chong seung min { hou chi / likely/seem / hou ho neng / possibly } { fan / lie / (hai dou) / there } jo ASP go Cl yan people

After all these tests, we can safely assume that the sentence-initial LPs in (1-10) are subjects.

IV. The D-Structure of Locative Inversion Sentences

In this section, I will first show that the verbs in the Locative Inversion sentences in (1-10) are unaccusative in nature. Then I will argue that the sentence- initial LPs originate in the postverbal complement position in D-structure and they move to the subject position at S-structure via a movement rule.

A. Locative Inversion Sentences Are Ergative Constructions

Perlmutter's Unaccusative Hypothesis (1978) distinguishes the unaccusative (ergative) verbs from the unergative (intransitive) verbs. The unaccusative verbs take a single argument which is base-generated in the structural object position at D-Structure and which bears either a theme or a patient role. On the contrary, the unergative verb takes an argument which occupies the structural subject position both at D- and S-structure and which is agentive in nature. Based on this insight, Burzio (1986:29) defines ergative verbs in terms of their lack of external θ-role.

(36) [Ergative verbs] refer to verbs which are subcategorized for a direct object and which do not assign a subject θ-role.

The verbs in the Locative Inversion sentences in Cantonese and Mandarin are usually verbs denoting presence, appearance and disappearance, which are similar to the inventory of ergative verbs discussed in Burzio (1986). Besides this superficial comparison, Zhou (1990:40-43) suggests two ergative diagnostics for Mandarin, the contrastive word orders and the reference of null objects. I will only adopt the first one for the analysis of Cantonese since the second one is problematic.

Sentences containing typical unergative(intransitive) and accusative (transitive) verbs do not allow postposition of the subject(see Huang(1987), Zhou(1990)). In contrast, in Locative Inversion sentences like (1-10), the "logical"(potential)[8] subject can occur postverbally, showing that the verbs are unaccusative in nature. (37a) and (38a), which consist of the verbs "cry" and "read", do not permit "subject postposition", as illustrated in (37b) and (38b). (39a) consists of the verb "fan"(lie) and "subject postposition"

is allowed, as shown in (39b).

(37)a. hou do sai lou jai hai chong seung min haam
many child at bed top/on cry

"There are many children crying on the bed."

b. *(hai) chong seung min haam jo hou do sai lou jai (hai dou)
at bed top/on cry ASP many child there

(38)a. hou do sai lou jai hai chong seung min tai syu
many child at bed on read book

"Many children are reading on the bed."

b. *(hai) chong seung min tai syu hou do sai lou jai
at bed top/on read book many child

(39)a. hou do sai lou jai fan hai chong seung min
many child lie at bed top/on

"There are many children lying on the bed."

b. (hai) chong seung min fan jo hou do sai lou jai (hai dou)
at bed top/on lie ASP many child there

That the verbs in sentences (1-10) are unaccusative in nature will, according to Burzio's hypothesis, predict that the argument, which bears the theme role and which is a "logical"(potential) subject, will occupy the object position in the D-Structure. Since there is no NP that bears the agent role, the external argument (the structural subject) position in the D-structure will be left empty.

The above prediction will automatically dismiss the possibility that sentence- initial LPs, which I have argued to be surface subjects, are base-generated in that position, as unaccusative verbs are defined by Burzio not to assign a subject θ-role. There is, in reality, evidence to support that the LPs take up the structural subject position via movement from the postverbal position.

B. The Proform "hai dou"(there)---Evidence for Movement

The hypothesis that the prepositional LPs originate in the postverbal position is fully justisfied when we examine the distribution of the proform "hai dou" (there), which optionally appears at the end of all the sentences in (1-10). First of all, the proform cannot exist on its own except when it means exactly the same as as the deictic adverb "here"

in English and the action related to it refers to the immediate presence.

(40)

paa	
lie prostrate	
cho	
sit	
kei	hai dou
stand	here
fan	
lie	
gwai	
kneel	

But it cannot coocur with a prepositional LP under any circumstances.

(41)

(*hai	chong	seung min)	cho	(*hai	chong	seung min)	
at	bed	top/on	sit	at	bed	top/on	

hai dou	(*hai	chong	seung min)
here	at	bed	top/on

However, when "hai dou" means something like "there" in English, a prepositional LP will also be present simultaneously. But the distributions of the proform and the LP are constrained. They cannot be placed immediately next to each other, as shown in

(42)

hai	chong	seung min	keui	cho	jo	
at	bed	top/on	he	sit	ASP	

(*hai	chong	seung min)	hai dou	(*hai	chong	seung min)
at	bed	top/on	there	at	bed	top/on

Furthermore, the LP must precede the proform.

(43)

(hai)	kiu	haa min	kei	jo	go	yan	hai dou
at	bridge	under	stand	ASP	CL	people	there

"There is a man standing under the bridge."

(44)

(hai)	ho	leui min	yau	yan	hai dou	yau seui
at	river	inside	have	people	there	swim

"There is a man swimming in the river."

The LP can occupy the position where the proform can appear, but the reverse is not possible.

(45) yau yan cho jo hai chong seung min
have people sit ASP at bed top/on

"There is a man sitting on the bed." (cf. (42))

(46) *hai dou cho jo go yan
there sit ASP CL people

(47) yau yan hai ho leui min yau seui
have people at river inside swim

"There is a man swimming in the river." (cf. (44))

(48) *yau yan hai dou yau seui
have people there swim

((46) and (48) is possible if "hai dou" means "here".)

The relative distribution of the prepositional LP and the proform "hai dou" (there) discussed above inevitably leads to the conclusion that the proform is used to fill up the gap after the LP is moved, thus behaving like a resumptive pronoun.

Turning back to the D-structure representation of the Locative Inversion sentences in (1-10), we can safely assume that the prepositonal LPs are base-generated as sister to the right of the verb and the NP which bears the theme or patient role. This assumption is based on the analysis of the distribution of the proform "hai dou"(there) in the section above, together with the fact that the prepositional LPs receive a locative θ-role from the verb. The argumental nature of the prepositional LP in D-structure is shown by the fact that it is obligatory in the following sentence.

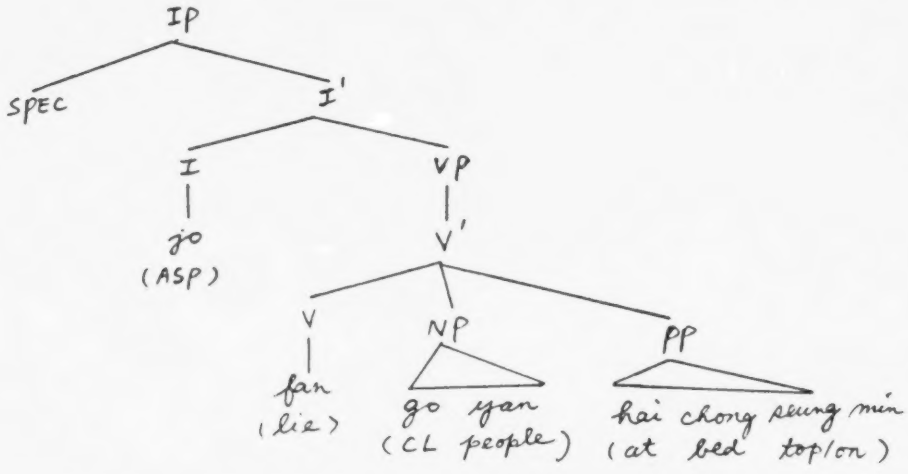
(49) yau go yan fan jo *(hai chong seung min)
have CL people lie ASP at bed top/on

"There is a man lying on the bed." (cf. (1))

Furthermore, following Li(1990) and Zhou(1990), I assume that unaccusative verbs can assign Case to their NP complements.[9] The D-structure of sentence (1), (which is repeated here as (50a)), for example, will be (50b).

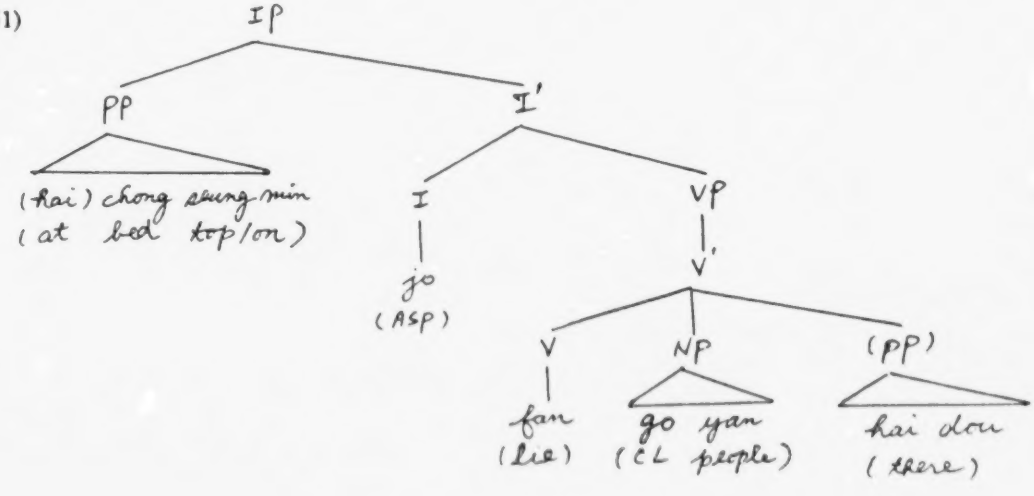
(50)a.	(hai)	chong	seung min	fan	jo	go	yan	(hai dou)
	at	bed	top/on	lie	ASP	CL	people	there

b.



That the subject position is empty at this stage provides a motivation for some kind of element to move in to satisfy the Extended Projection Principle (that sentences must have overt subjects). Theoretically, with a D-structure like (50b), there are two possibilities of movement, either moving the LP or the object NP. As the structure we are analyzing now is Locative Inversion, the LP therefore moves. As regards the possbility of moving the object NP, I will leave it for further research. (Note that on the previous page, I have already assumed that ergative verbs can assign inherent Case; the movement of the object NP to the [SPEC, IP] will make it doubly Case-marked). Applying the rule of move-α, the S-Structure of (1) will be

(51)



That the preposition "hai"(at/in/on/from) in the sentence-initial LPs of (1-10) may be null is due to the application of a late rule at PF.

The movement of the prepositional LP into the [SPEC, IP] is an A-movement. It basically abides by the properties of Substitution Movement as laid out in Chomsky(1986:4)--only a maximal projection can move to the specifier position. Besides, the proform "hai dou"(there) or the trace(when the proform is null) left behind after the movement is properly head-governed by the verb, thus satisfying the ECP(see discussion in Part 2).

But a question arises from the analysis above since the prepositional LP moves into a Case-marked position (i.e. [SPEC, IP]). Stowell's(1981:146) Case Resistance Principle (CRP) forbids PPs and clauses to receive Case becasue both of them bear Case-assigning features (Ps in PPs and [+tense] in clauses).

(52) The Case-Resistance Principle (CRP)
Case may not be assigned to a category bearing a Case-assigning feature.
(Stowell's (66))

But the CRP has suffered a lot of criticism. Firstly, Li(1990) argues that both finite and non-finite clauses in Mandarin Chinese can be assigned Case despite the fact that she still maintains the impossibility of assigning Case to PPs. Secondly, Fabb(1984) and Koopman(1984) both advocate that PPs can be assigned Case. Fabb suggests that the complement PP in English is assigned Prepositional Case "Cp" which will percolate down to the preposition. Koopman, in studying Vata(and Gbadi), comes up with the following generalisation.

(53) a. NPs and PPs must occur in Case positions
b. Case is assigned to the left in Vata. (Koopman's (26),p.115)

She also remarks that "PPs,.....would be some kind of disguised NPs which have to be Case-marked"(p.115). In fact, the prepositional LPs in Cantonese does behave like NPs in some contexts, which therefore enhances the plausibility of saying that they can be Case-marked. This piece of evidence is cited in section V.

C. The D-structure of the Accusative Counterparts of Some Locative Inversion Sentences

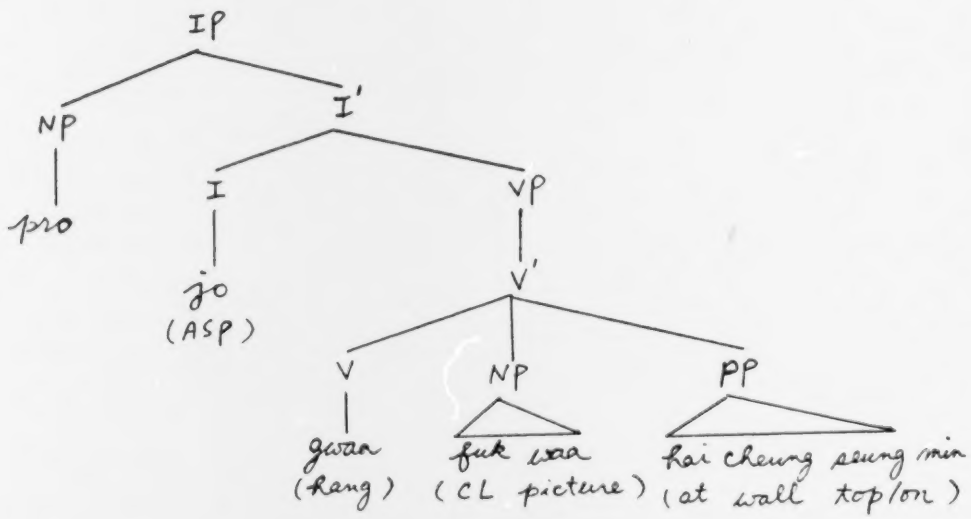
As mentioned in Section I, some of the Locative Inversion sentences like (2, 7-10) have accusative counterparts. In this case, the surface form of (2), which is repeated here as (54a), will be ambiguous between the unaccusative and the accusative reading. The

latter will be interpreted to have a D-structure like (54b).

(54)a.	(hai)	cheung	seung min	gwaa	jo	fuk	waa	(hai dou)
	at	wall	top/on	hang	ASP	CL	picture	there

"There is a picture hanging on the wall."

b.



This is particularly obvious if sentence (2)(with slight modification) appears as part of a discourse and the agent is omitted to avoid repetition as it is mentioned previously. The following is an example.

(55)	A:	nei	sai lou	hai	cheung	seung min	gwaa	jo
		you	brother	at	wall	top/on	hang	ASP
		keui	ge	waa	hai dou			
		he	POSS	picture	there			

"Your brother has hung his picutre on the wall."

nei	wui	hai	bin dou	gwaa	nei	fuk	waa?
you	will	hai	where	hang	you	CL	picture

"Where will you hang your picture?"

B:	dou	wui	hai	cheung	seung min	gwaa
	also	will	at	wall	top/on	hang

"I will also hang my picture on the wall."

(or seriously:

ngo	dou	wui	hai	cheung	seung min	gwaa	ngo	fuk
I	also	will	at	wall	top/on	hang	I	CL
waa	(hai dou)							
picture	there							

"I will also hang my picture on the wall.")

Note that the adverb "dou"(also) and the auxiliary verbs "wui"(will), unlike the cases in (31-32) where they must follow the prepositional LPs, precede them in (55). This is evidence to show that the LPs in (55) are not the same as those in (1-10) and these LPs are in VP-adjoined(or topicalized) position(see further examples in (57)) rather than in the subject position. Since the proform "hai dou"(there) also exists, we can assume that, as the analysis above, the prepostional LPs originate in the postverbal complement position.

With the subject lexicalized (say Ah Chan), (54b) will result in a sentence like (56).

(56)

Ah Chan	gwaa	jo	fuk	waa	hai	cheung	seung min
	hang	ASP	CL	picture	at	wall	top/on

"Ah Chan hung a picture on the wall."

When the LP is preposed or topicalized, (56) becomes either (57a) or (57b).

(57)a.

Ah Chan	hai	cheung	seung min	gwaa	jo
	at	wall	top/on	hang	ASP
fuk	waa	(hai dou)			
CL	picture	there			

b

hai	cheung	seung min	Ah Chan	gwaa	jo
at	wall	top/on		hang	ASP
fuk	waa	(hai dou)			
CL	picture	there			

V. Theoretical Interests of the Movement Analysis in Cantonese Locative Inversion: A Comparison of Cantonese and Mandarin

The claim that sentence-initial LPs in (1-10) originate in the postverbal complement position in D-structure suggests that the word order constraint in Cantonese may be very different from that of Mandarin as proposed by Li(1990). According to her, the Chinese [Mandarin] Word Order Constraint consists of the following principles.

(58) a. Chinese is head-final except under the requirement of Case assignment.
b. Case is assigned from left to right in Chinese.
c. A Case assigner assigns at most one Case. (Li's (23), chapter 1, p.11))

This hypothesis predicts that only Case receivers occur immediately to the right of the head; otherwise, the head occurs finally. Since PPs are not subject to the Case Filter, they are not assigned Case and do not occur postverbally. If the analysis so far in this paper is correct, Cantonese will not be subject to the constraint that only Case receivers can occur postverbally because there are complement prepositional phrases following the verb.

As a matter of fact, Li's analysis of the apparent postverbal prepositional phrases in Mandarin cannot be applied to that in Cantonese. Li considers the postverbal locative PP in the following Mandarin sentence not a real PP.

(59) ta shui/tiao zai dishang
he sleep/jump at floor-surface

"He sleeps on/jumps to the floor." (Li's (37a), ch.3, p.59)

She proposes that the VP structure in (59) is [[$_V$ V P] NP], where P is reanalysed with V and forms a complex verb. Alternatively, the P may simply be a V, combining with the main verb to become a compound V: [[$_V$ V V] NP]. Therefore, the sentence in (59) does not violate the word order constraint. There are simply no real PPs in postverbal position(p.59). The basic evidence she puts forward is that verbs like "shui"(sleep) and "tiao"(jump) form a unit with "zai"((be)at), as it is impossible to insert aspect markers between "shui/tiao" and "zai".

However, this is not what we find in the case of the postverbal PPs in Cantonese. Aspect markers can always be inserted between the verb and the PP, showing that no reanalysis has taken place. This can be seen from sentences (1,2,5,6,8,9).

In relation to the Chinese Word Order Constraint, Li also assumes that the θ-positions and Case positions in Mandarin Chinese do not coincide. θ-role assignment (at D-structure) is from right to left; Case-assignment (at S-structure) is from left to right. Based on these assumptions, Li (1990:11) claims that Mandarin Chinese is "head-final (SOV, postpostional, N-final) at D-structure and SVO, prepostional, N-final at S-structure". The proof that prepositonal LPs in Cantonese can occur postverbally at D-structure (and S-structure) implies that θ-role assignment in Cantonese is from left to right. Since the word order of Cantonese phrase structure is basically SIMPLE/COMPLEX MODIFIER-HEAD and HEAD-ARGUMENT, and if we consider the headness parameter a "lexical relationship between head and arguments"(cf.

Huang(1990),p.57), then Cantonese is similar to English in that Case-positions and θ-positions coincide.

The proof that the prepositional LPs move from the postverbal non-Case position at D-structure to the Case-marked subject position at S-structure indicates that PPs in Cantonese can receive Case(in some situations). In this respect, Cantonese pairs off with English but diverges from Mandarin (using Li's account in (1990)) since English but not Mandarin also allows PPs to appear in Case positions. In English, for example, we can say "The mouse ran out from [under the bed]". That PPs in Cantonese can receive Case also predicts that PPs in this language may behave like lexical NPs in some ways since lexical NPs must be assigned Case. Indeed, the prediction is borne out because like NPs, PPs can occur in the prenominal modifier environment as in

(60) [_____ { NP / PP } { Ø / ge / CL / DD } N]

where "ge" is a modifier marker, "CL" is a classifier and "DD" is a demonstrative determiner. In Cantonese, the following sentences containing PPs as prenominal modifiers are definitely well-formed.

(61)	keui	hei fun	hai	cheung	seung min	(go)	fuk	waa
	he	like	at	wall	top/on	that	CL	picture

"He likes that picture which is hanging on the wall."

(62)	keui	yiu	sou	saai	hai	toi	haa min	ge	lap sap
	he	want	sweep	all	at	table	under	MOD	rubbish

"He wants to sweep away all the rubbish that is under the table."

But according to Li, PPs in Mandarin can never occur in the environment of (60).

VI. Summary of Part 1

Part 1 of this paper has given a preliminary sketch for the locative inversion phenomenon in Cantonese. It has succeeded in establishing the D-structure for the Locative Inversion sentences as in (1-10), and has come to the conclusion that movement is involved--the postverbal complement PP moves to fill the empty subject position. It also raises the issue that Cantonese PPs can be assigned Case in some situations, thus echoing the findings by Fabb and Koopman. Because of these findings and generalizations, the paper also proposes that the Cantonese word order is SVO both at D- and S-structure.

With the establishment of all these fundamental claims, I will, in Part 2, look into more complicated syntactic processes like extraction of arguments and adjuncts across wh-islands and SuperRaising that are related to the Locative Inversion sentences. Besides, I will also examine "yau"(have) existential sentences that begin with a LP.

Part 2

I. Further Evidence for the Argumental Status of the Sentence-initial LPs

In the first part of this paper, I have argued that the sentence-initial LPs in (1-10) originate in the postverbal complement position at D-structure. The arguments I have advanced are that the LPs receive a locative θ-role from such verbs as "fan"(lie), "kei"(stand) and "gwaa"(hang) and these LPs are obligatory whether they are in the sentence-initial position as in (1-10) or in the postverbal position as in (49) or (56) of Part 1. This hypothesis is further justified, as we will see below, when we compare the LP's extraction behaviour with that of duration and frequency expressions which are adjunct-like(for the proof of the adjunct status of their Mandarin counterparts, see Tang(1990)). The comparison is based on Rizzi's(1990) theory of Relativized Minimality which helps to reveal the argumental status of the LPs.

The discussion in this section is in the following order. I will first outline the essential features of the principle of Relativized Minimality. Next I will show that besides the possibility of being an I'-adjunct, the negation marker "m" (not) in Cantonese can be the spec of VP, an A'-specifier. Then, I will contrast the extraction behaviour of the adjunct-like duration expressions with that of the postverbal LPs (in accusative sentences such as (56)) when a negation marker is present in the [SPEC,VP]. The extraction process that will be examined in this particular occasion is topicalization, an A'-movement. It is found that the topicalization of duration expressions will be blocked by the VP-specifier whereas that of the LP will not. Based on the Rizzi's theory, we can infer that postverbal "hai" LPs in Cantonese are arguments bearing a referential θ-role(in Rizzi's sense). Since in the D-structure, the LPs in the Locative Inversion sentences have been shown to be the same type of entity as those in (56)(see Part 1,Section IV for discussion), they are no doubt arguments too. For this reason, in Locative Inversion sentences like (1-10), the movement of the LP from the postverbal complement position to the subject position ([SPEC of IP]) is an A movement. The theory of Relativized Minimality predicts that such kind of movement will not be blocked by A'-specifiers like the negation marker "m"(not) in the [SPEC,VP]. And indeed this is shown to be the case.

A. The Theory of Relativized Minimality

As Rizzi points out in the forward of his book *Relativized Minimality*, the study of the nature and properties of the locality condition is the central task of much current work in syntactic theory. There are essentially two different approaches in dealing with the issue of locality: the "barrier" approach and the "intervention" approach.

The "barrier" approach argues that certain structural boundaries count as barriers for syntactic processes. Suppose we have a configuration like (63).

(63) $.....[_{\alpha} .....[_{\gamma} .....\beta.....].....].....$

α=maximal projection

γ=barrier

The extraction of "β" out of the configuration will make the related sentence ungrammatical becasue two barriers have been crossed and Subjacency is violated. (The Subjacency Condition may simply be defined as "movement must not cross more than one barrier"). (64) is an example of Subjacency violation.

(64) *What$_i$ did [$_{IP}$ [$_{CP}$ that she disliked t_i][$_{VP}$ surprise you]]

The "intervention" approach assumes that a syntactic process cannot apply across an intervening element of a designated kind, which could in principle be involved in the process. The Minimality Condition in Chomsky(1986) serves as a good illustration of this approach. With reference to a configuration like (65), the Condition can be defined as (66).

(65) $.....\alpha .....[_{\gamma} .....\delta .....\beta .....]$..... (Chomsky 1986,p.42)

(66) Minimality Condition (broader definition)
γ is a barrier for β if γ is an immediate projection
of δ, a zero-level category distinct from β. (Sung(1990),p.21)

So in the configuration (65), assuming that "γ' is the immediate projection of "δ", "α" will fail to govern "β" even in principle it could do so. To illustrate the Condition, we give the following example.

(67) *Who$_i$ does John think [$_{CP}$ t'$_i$ [$_{C'}$ that [$_{IP}$ t_i can read]]]

"t'$_i$ " fails to govern "t_i " because of the intervening complementizer "that", which is the head of CP and whose immediate projection is C'--a barrier, thus an ECP violation results.

Rizzi's theory of Relativized Minimality intends to "maximize the role of intervention and correspondingly reduce the role of barriers in the definition of government". For this purpose, "barriers" are no longer the most crucial factor in determining government relations. The Minimality Condition of (66) is also excluded in Rizzi's theoretical account. The principle of Relativized Minimality is in essence employed to block "government of some kind across an element which could bear a government relation of the same kind"(Rizzi(1990), Forward).

In Rizzi's analysis, the θ-government requirement of "proper government" in *Barriers* is dispensed and the ECP is reduced to (68).

(68) ECP: A nonpronominal empty category must be properly head-governed. (Rizzi, p. 89)

Head government is in turn defined as

(69) Head Government: X head-governs Y iff
(i) X ∈ {A,N,P,V,Agr,T}
(ii) X m-commands Y
(iii) no barrier intervenes
(iv) Relativized Minimality is respected. (Rizzi, p.6)

Furthermore, "properly-governed" means "governed by X° within X'" (Rizzi,p. 31).

In addition, to explain the difference between an object and an adjunct in the effects they generate when moving across a wh-island, Rizzi proposes two ways to connect an operator (a wh-phrase or a topicalized element) and its variable(trace): binding and a chain of government relations.

(70) "Binding requires identity of referential indices, a formal property now restricted by [the following principle: A referential index must be licensed by a referential θ-role(Rizzi,p.86)]. When co-indexation and binding are not available, the chain of government relations is the only connecting device. But the government relations are intrinsically local." (Rizzi, p.92)

Let us elaborate some of the basic concepts mentioned in (70). Referential θ-roles are argumental θ-roles and they include "agent, theme, patient, experiencer, goal, etc"(Rizzi,p.86). There are also quasi-argumental or non-referential θ-roles and they include "manner, measure, atmospheric-role and idiosyncratic role in idioms,

etc."(Rizzi,p.86). An object or an object wh-phrase is an element that is assigned a referential θ-role which licences a referential index. So it can form a binding relation with its trace when it moves, and the binding dependency needs only satisfy head government(see the definition in (69)). In sum, a binding relation is defined as

(71) X binds Y iff
(i) X c-commands Y
(ii) X and Y have the same referential index. (Rizzi,p.87)

An example of binding relation is given in (72).

(72) ??Who$_i$ do you wonder [why [John invited t_i]]

As regards the chain of government relations, the ideas of "chain" and "antecedent-government" are most crucial. Rizzi(1990) defines a chain as

(73) (a_1 ,...,a_n) is a chain only if, for 1≤i<n,
a_i antecedent-governs a_{i+1} (p.92)

Antecedent-government is in turn defined as

(74) X antecedent-governs Y iff
(i) X and Y are non-distinct
(ii) X c-commands Y and
(iii) no barrier intervenes
(iv) Relativized Minimality is respected. (p.92)

Since an adjunct or an adjunct wh-phrase will not be assigned a referential θ-role, and hence not a referential index, it cannot form a binding dependency. It must therefore form a chain with its trace when it moves, because (antecedent-)government is the only connecting device left. An example of (antecedent-) government relations is shown below.

(75) How$_i$ do [you think [t'$_i$ [John will propose to Mary t_i]]]

In (75), "t'$_i$ " antecedent-governs "t_i " and "how$_i$ " in turn antecedent-governs "t'$_i$ ".

From definitions (69) and (74), we see that both head-government and antecedent-government are constrained by the clause of Relativized Minimality and it is defined as

(76) Relativized Minimality

X α-governs Y only if there is no Z such that

(i) Z is a typical potential α-governor for Y,

(ii) Z c-commands Y and does not c-command X. (Rizzi,p.7)

The variable notion of α-government ranges over head-government and three different cases of antecedent-government(A-antecedent government, A'-antecedent government and X° -antecedent government). So the intuitive idea behind Relativized Minimality is that a paricular kind of government is blocked by the intervention of an element which typically has the potential for government of that kind. The four subcases of typical potential governors are

a. Z is a typical potential head governor for Y=Z is a head m-commanding Y.

b. Z is a typical potential antecedent governor for Y, Y in an A-chain=
Z is an A specifier c-commanding Y.

c. Z is a typical potential antecedent governor for Y, Y in an A'-chain=
Z is an A' specifier c-commanding Y.

d. Z is a typical potential antecedent governor for Y, Y in an X °-chain=
Z is a head c-commanding Y. (Rizzi, p.7)

These four cases generalize the idea that "typical potential governors of different kinds create impermeable domains for government"(p. 8).

According to Rizzi, the Relativized Minimality constraint accounts for not only wh-island violations with adjuncts but also violations with adjuncts in the case of inner and pseudo-opacity islands. These two islands are created by a negation and a floating quantifier respectively when they occupy the [SPEC,VP] position. In contrast to their effects on adjuncts, all the three kinds of islands mentioned here (which can be subsumed under the name of "wh-islands") do not produce a violation with arguments.

I will illustrate the working of Relativized Minimality by looking at how inner islands affect the extraction of arguments and adjuncts, since we will study similar problems in Cantonese later on. As can be seen, the movement of the two wh-phrases in (77) and (78) respectively generate two different results.

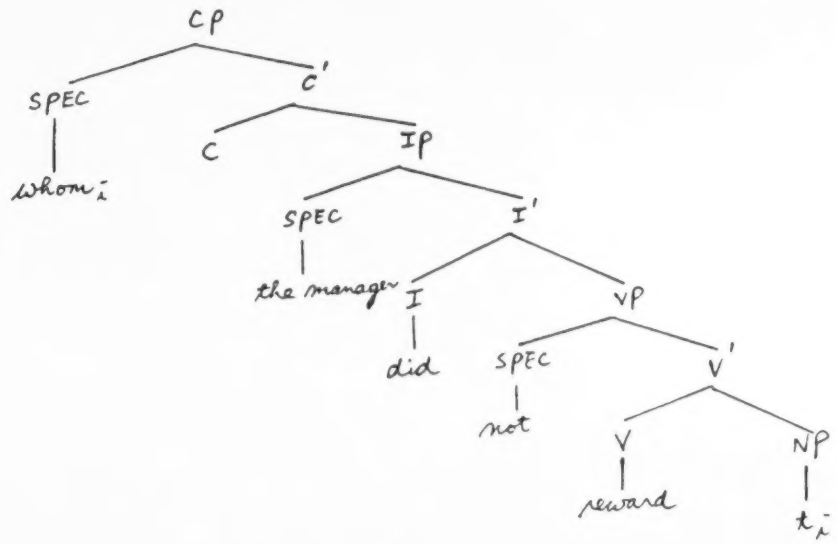
(77) Whom$_i$ didn't the manager reward t_i

(78) *How$_i$ didn't the manager reward the players t_i

The relation between "whom$_i$ " and "t_i " in (77) is a binding one since the "wh-phrase" is assigned a referential θ-role which licences a referential index. What this dependency

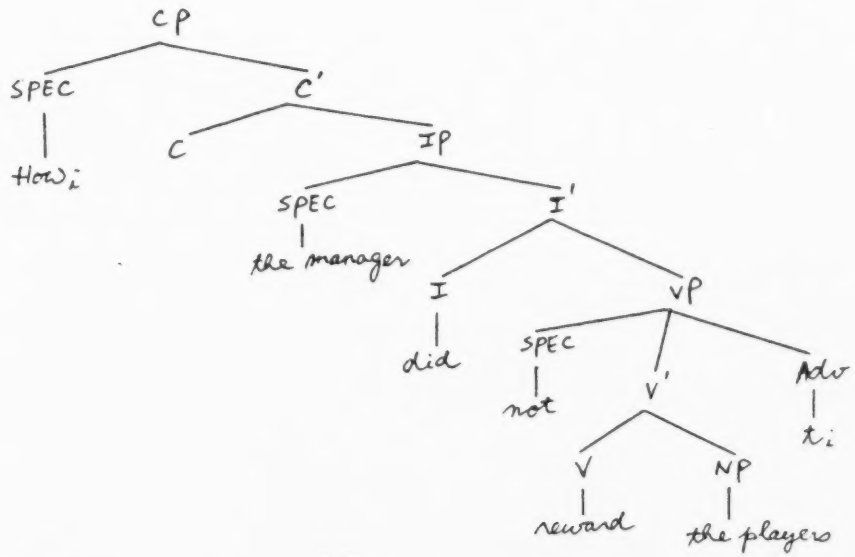
needs to fulfil is only head-government and the trace is indeed properly head-governed by the verb as witnessed in (79). (V c-commands t_i , there is no barrier intervening and Relativized Minimality is respected.)

(79)



On the other hand, the relation between the adjunct and the trace in (78) cannot be "binding" since "how$_i$ " is not assigned a referential θ-role and hence not a referential index. In this case, "how$_i$ " and "t_i " can only be connected by a chain which must fulfill the condition of antecedent- government as defined in (74). Rizzi proposes that the negation in English is a spec of VP(an A'-specifier). So the structural representation of (78) is (80).

(80) *



The movement of "how$_i$ " to the [SPEC, CP] is ruled out by Relativized Minimality because "how$_i$ " cannot antecedent-govern the trace due to the intervention of the A'-specifier "not" in the [SPEC, VP]. To generalize, Relativized Minimality predicts that the extraction of an argument across an wh-island is well-formed but that of an adjunct is ill-formed.

With an understanding of how Relativized Minimality works, I will go on to give further justification to the hypothesis that the sentence-initial LPs of the Locative Inversion Sentences(1-10) are postverbal complements (arguments) in the D-structure.

B. The LPs as Arguments

The negation marker "m"(not) in Cantonese can either precede or follow an auxiliary verb like "ho yi"(can/may), "ying goi"(should) or "wui"(will), as illustrated in (81).

(81)a.	keui	m	ho yi	maai	ni di	saam	(aa)
	he	not	can	buy	these	clothes	PART

"He is not allowed to buy these clothes."

b.	keui	ho yi	m	maai	ni di	saam	(aa)
	he	can	not	buy	these	clothes	PART

"It is not necessary for him to buy these clothes."

We can safely assume that "m"(not) in (81a) is an I'-adjunct since it precedes the auxiliary verb. The topicalization of the VP in (81a) is always grammatical as shown in (82); and the movement will not involve the negation marker since it is I'-adjoined.

(82)	maai	ni di	saam	(aa),	keui	m	ho yi
	buy	these	clothes	PART	he	not	can

The "m"(not) in (81b), however, must be a constituent of VP and this can be demonstrated by the contrast between (83a) and (83b).

(83)a.	*maai	ni di	saam	(aa),	keui	ho yi	m
	buy	these	clothes	PART	he	can	not

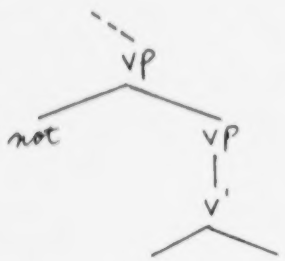
b.	m	maai	ni di	saam	(aa),	keui	ho yi
	not	buy	these	clothes	PART	he	can

Sentence (83a) is the result of topicalizing the VP in (81b) without moving the negation marker with it and it is ungrammatical. But the topicalization of the VP together with the

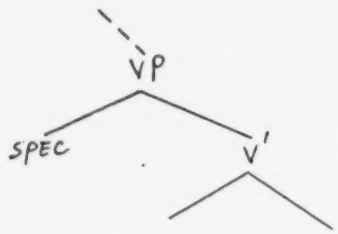
negation marker will produce a grammatical sentence like (83b).

As a constituent of VP and as an element preceding the verb, the negation marker in (81b) can occupy two different positions in principle, either VP adjunction or [SPEC, VP]. The two positions are shown in (84).

(84)a.



b.



Nevertheless, the second alternative should be opted for because of two pieces of evidence. First, Rizzi suggests that "pas/not" in French and English are specifiers owing to the fact that they can function as specifiers of other projections, namely, QP's and AP's.

(85) QP's: pas beaucoup; pas tout
=not much; not all
AP's: pas capable de faire
=not capable of doing (Rizzi, p. 17)

The same analysis can be applied to the negation marker "m"(not) in Cantonese. We can say

(86)

m / not	do
	much/many
	siu
	little/few
	leng
	beautiful
	gwai
	expansive

Second, the negation marker may have the same distribution as some typical specifiers like "hou"(very), "goum"(so), "taai"(too) and "gei"(quite). They can modify cognition verbs as well as stative verbs. The following are two examples.

(87)a.

	m		seung		
	not		want		
Mary	goum		paa	heui	Singapore
	so		fear	go	
	taai		hei mong		
	too		hope		
	gei		yun yi		
	quite		would like		

b.

	m		gou
	not		tall
Max	goum		lek
	so		capable
	taai		ngo
	too		hungry
	gei		ngok
	quite		unfriendly

We therefore conclude that the negation marker in VP is located at the [SPEC, VP]. We can now move on to compare the extraction behaviour of the adjunct-like duration expressions with that of the postverbal "hai"(at/in/on/from) LPs when there is a VP specifier "m"(not) existing in the sentence.

Adjunct expressions like "leung go jung tau"(two hours) and "saam yat"(three days) can be topicalized if they appear in sentences like (88) where the negation marker is in the I'-adjunction position. The negation marker in this context will not trigger Relativized Minimality because it is not a specifier.

(88)a.

keui	(dou)	m	ho yi	dang	leung	go	jung tau
he	also	not	can/may	wait	two	CL	hour

"He (also) can/may not wait for two hours."

b.

leung	go	jung tau,	keui	(dou)	m	ho yi	dang
two	CL	hour	he	also	not	can/may	wait

(The presence of "dou"(also) will make the sentence more natural.)

But if the negation marker is in the [SPEC, VP] position, the topicalization of the duration expressions will result in an ungrammatical sentence whether "dou"(also) is present or not.

(89)a. keui (dou) ho yi m dang leung go jung tau
he also can/may not wait two CL hour

"It is not necessary for him to wait for two hours."

b. *leung go jung tau, keui (dou) ho yi m dang
two CL hour he also can/may not wait

The ill-formedness of (89b) is predicted by the principle of Relativized Minimality since the topicalization of the duration expressions (which is an A'-movement) is blocked by a potential antecedent governor--the negation marker "m"(not) in the [SPEC, VP](for which I have given proofs above).

On the other hand, the topicalization of the postverbal "hai"(at/in/on/from) LPs in accusative sentences containing verbs like "gwaa"(hang), "lim"(paste) and "jong"(install) is legitimate whether the negation marker is in the I'-adjunction or [SPEC, VP] position.

(90)a. Ah Wong (m) ho yi (m) gwaa waa hai cheung seung min
not can/may not hang picture at wall top/on

"Ah Wong is not allowed
It is not necessary for Ah Wong } to hang pictures on the wall."

b. hai cheung seung min, Ah Wong (m) ho yi (m)
at wall top/on not can/may not
gwaa waa *(hai dou)
hang picture there

The acceptability of (90b) suggests that the LP must be an argument receiving a referential θ-role from the verb and thus assigned a referential index. The LP after topicalization is coindexed with the proform "hai dou"(there) and they can form a binding dependency rather than a government chain. Consequently, the principle of Relativized Minimality has no effect on the movement because it constraints head-government and antecedent-government only, but not a binding relation.

We have argued in Part 1 that sentence-initial LPs of the Locative Inversion sentences originate in the postverbal position in the D-structure. At this level, they occupy the same position and receive the same type of θ-role as the LP in (90a) (see discussion in Part 1, Section IV). Therefore, they must also be arguments (complements) too. The legitimacy of their movement to the subject [SPEC, IP] position(see the discussion in Part 1 for the hypothesis of movement) is likewise predicted by the theory of Relativized Minimality even though an A'-specifier negation marker intervenes as in the case of (91).

(91)	(hai)	cheung	seung min	ho yi	m	gwaa	waa	(hai dou)
	at	wall	top/on	can/may	not	hang	picture	there

"It is not necessary to hang pictures on the wall."

Since locative inversion is an A-movement (from an argument position to another argument position), an A'-specifier will never interfere with antecedent government in an A-chain because it is only a potential governor in an A'- chain.

II. Further Justification for the Subjecthood of the Sentence-initial LPs in Locative Inversion Sentences

In this section, I will give further justification to the subjecthood of the LPs in Locative Inversion sentences by looking at the phenomenon of SuperRaising in Cantonese. I will first show what SuperRaising is like in Cantonese. After this preliminary set-up, I will go on to argue that sentence-initial LPs of the Locative Inversion sentences exhibit characteristics parallel to the subjects of the SuperRaising sentences discussed.

Let's observe the following paradigm.

(92)a.	hou chi	[pro]	waa	di	waa	gwaa	jo	hai	cheung	seung min
	seem	EC	say	those	picture	hang	ASP	at	wall	top/on

"It seems that somebody says that those pictures are hung on the wall."

b.	di	waa_i	hou chi	[pro]	waa	t_i	gwaa	jo	hai
	those	picture	seem	EC	say		hang	ASP	at
	cheung	seung min							
	wall	top/on							

c.	*hou chi	di	waa_i	waa	t_i	gwaa	jo	hai
	seem	those	picture	say		hang	ASP	at
	cheung	seung min						
	wall	top/on						

(93)a.	hou chi	[pro]	waa	gaa	che	bei	yan	tau	jo
	seem	EC	say	CL	car	PM	people	steal	ASP

"It seems that somebody says that the car has been stolen."

b.	gaa	che_i	hou chi	[pro]	waa	t_i	bei	yan	tau	jo
	CL	car	seem	EC	say		PM	people	steal	ASP

c.	*hou chi	gaa	che_i	waa	t_i	bei	yan	tau	jo
	seem	CL	car	say		PM	people	steal	ASP

As "hou chi"(seem) is assumed to be a raising predicate,[10] we can hypothesize that the subjects of the embedded clause in (92a) and (93a) have been raised to the sentence-initial position forming (92b) and (93b). As regards (92c), its ungrammaticality is obvious. The word "waa"(say) requires an agentive external argument, whereas "di waa"(those pictures) is a theme. ("Di waa"(those pictures) occurs underlyingly in the object position since "gwaa"(hang) in this case is an unaccusative verb--see Part 1, section IV for discussion.) From (93b), we can also infer that the subject of a passive subordinate clause can also be SuperRaised. Again, (93c) is ill-formed since "gaa che"(the car) bears a patient role and cannot serve as the agentive external argument of the verb "waa"(say).

The sentence-intial NPs in the SuperRaising sentences (92b) and (93b) are definitely subjects rather than topics because sentence adjuncts like "tsan maa faan"(very troublesome) and "hou m hou choi"(unfortunately), which we have used to distinguish subjects from topics in Part 1, can be placed immediately before them. (But topics behave otherwise.) (94a) and (94b) illustrate this point.

(94)a.	tsan maa faan	di	waa_i	hou chi	[pro]	waa	t_i	gwaa
	very troublsome	those	picture	seem	EC	say		hang
	jo	hai	cheung	seung min				
	ASP	at	wall	top/on				

"It is troublesome that it seems that somebody says that those pictures are hung on the wall."

b.	hou m hou choi	gaa	che_i	hou chi	[pro]	waa	t_i
	unfortunately	CL	car	seem	EC	say	
	bei	yan	tau	jo			
	PM	people	steal	ASP			

"Unfortunately, it seems that somebody says that the car has been stolen."

The sentence-initial LPs of Locative Inversion sentences behave exactly the same as those subjects in (92a) and (93a) with respect to SuperRaising. Sentences in (95), which contain sentence-initial LPs, have the same pattern as those in (92) and (93).

(95)a.	hou chi	[pro]	waa	(hai)	cheung	seung min
	seem	EC	say	at	wall	top/on
	gwaa	jo	fuk	waa	(hai dou)	
	hang	ASP	CL	picture	there	

"It seems that somebody says that there is a picture hanging on the wall."

b.	(hai)	cheung	seung min$_i$	hou chi	[pro]	waa	t_i
	at	wall	top/on	seem	EC	say	
	gwaa	jo	fuk	waa	(hai dou)		
	hang	ASP	CL	picture	there		

c.	*hou chi	(hai)	cheung	seung min$_i$	waa	t_i
	seem	at	wall	top/on	say	
	gwaa	jo	fuk	waa	(hai dou)	
	hang	ASP	CL	picture	there	

Furthermore, the sentence adjunct "tsan maa faan"(very troublesome) can likewise be placed immediately before the LP in (95b) and this evidence supports the conclusion that the LP is a subject, not a topic.

(96)	tsan maa faan	(hai)	cheung	seung min$_i$	hou chi	[pro]	waa t_i
	very troublesome	at	wall	top/on	seem	EC	say
	gwaa	jo	fuk	waa	(hai dou)		
	hang	ASP	CL	picture	there		

When the "pro" in each of the sentences (92b), (93b) and (95b) is replaced by a lexical subject as shown in (97), the grammatical function of the initial phrases in all these (b) sentences changes as well. The sentence-initial phrases in (97a) and (97c)("di waa"(those pictures) and "hai cheung seung min"(on the wall)) can only be interpreted as topics as witnessed from the fact that the sentence adjunct "tsan maa faan"(very troublesome) cannot be put immediately before them. Furthermore, (97b) can hardly be interpreted because it is simply ungrammatical.

(97)a.	(*tsan maa faan)	?di	waa$_i$	hou chi	Ah Chan	waa	t_i	gwaa
	very troublesome	those	picture	seem		say		hang
	jo	hai	cheung	seung min				
	ASP	at	wall	top/on				

b.	*gaa	che$_i$	hou chi	Ah Chan	waa	t_i	bei	yan	tau	jo
	CL	car	seem		say		PM	people	steal	ASP

c.	(*tsan maa faan)	?(hai)	cheung	seung min$_i$	hou chi	Ah Chan	waa
	very troublesome	at	wall	top/on	seem		say
	t_i	gwaa	jo	fuk	waa	(hai dou)	
		hang	ASP	CL	picture	there	

To summarize, three points of interests stand out from the analysis in this section.

(i) The sentence-initial LPs of the Locative Inversion sentences(1-10) are undoubtedly subjects and they can participate in SuperRaising, as shown in (95b).

(ii) In Cantonese SuperRaising(an A-movement), extracting a subject across another lexical subject, which is an A-specifier and which is a potential antecedent governor, is prohibited. Such restriction is clearly shown in (97). The reason why (97a) and (97c) are felicitous is that the sentence-initial phrases ("di waa"(those pictures) and "hai cheung seung min"(on the wall)) are topics. The movement process cannot be interpreted as SuperRaising--an A movement, and it can only be topicalization--an A'-movement. The lexical subject "Ah Wong" or "Ah Chan", which is an A-specifier, will not intervene in an A'-movement. Hence, the principle of Relativized Minimality makes the right prediction in these cases.

(iii) However, the fact that SuperRaising is allowed in (92b), (93b) and (95b) suggests that "pro" in Chinese, although an A-specifier, will not intervene in an A-chain and block the movement , unlike what is predicted by the principle of Relativized Minimality.

III. Extension of the Locative Inversion Analysis to Existential "Yau"(have) Sentences

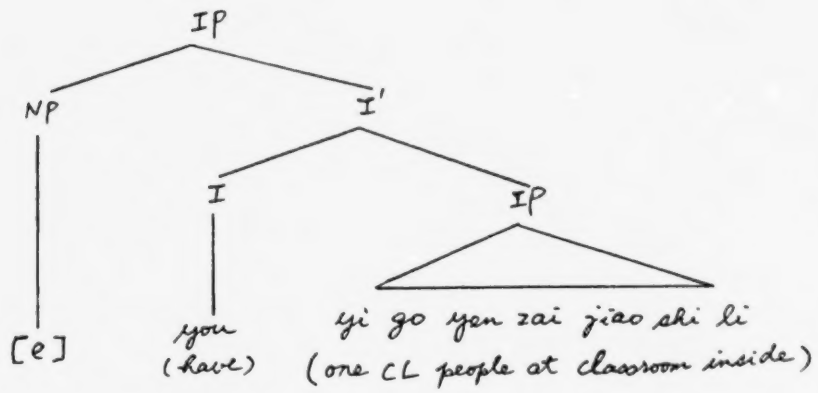
The proposal that the sentence-initial LPs of the Locative Inversion sentences in (1-10) results from a movement operation can be carried over to the existential "yau"(have) sentences beginning with a LP. The locative inversion of the "yau"(have) sentences, however, is not limited to extracting LPs from the postverbal complement position. Preverbal adjunct LPs can also be moved to the sentence-initial (subject) position. In both cases, the pro-form "hai dou"(there) may coexist with the LPs, thus bearing witness to the operation of the movement process. The subjecthood of the sentence-initial LPs can be ascertained by the fact that they pass all the tests for subjects which have been employed in the earlier analysis. The movement analysis in the existential "yau"(have) sentences is comparable to Freeze's(1991) crosslinguistic analysis of "have" structures as locative sentences. But it differs widely from Huang's(1989) analysis of the existential "you"(have) sentences in Mandarin as far as the sentence-initial LPs are concerned.

Huang(1989) proposes that in Mandarin, an existential "you"(have) sentence like (98a) can be analyzed with a structure shown in (98b).

(98)a.	you	yi	go	yan	zai	jiao shi	li
	have	one	CL	people	at	classroom	inside

"There is a man inside the classroom."

b.



The crucial assumption in this case is that "you"(have) in (98) is an auxiliary verb in contrast to the full-verb "you"(have) in the possessive sentences. If the subject of the lower IP is indefinite, like "yi go yan"(a person), it will not be raised to the subject position of the matrix IP which is left empty in the surface form. However, if the subject of the lower IP is definite, it will be obligatorily raised to the empty subject position. But according to Huang(1989), it is not possible for a definite NP to follow immediately the existential "you"(have). So raising will not occur in the existential "you"(have) sentences such as (98). It can only happen in sentences having "you" as a perfective auxiliary verb like (99).

(99) Zhangsan$_i$ mei you t_i kan jian Lisi
not have see

"Zhangsan did not/has not see/seen Lisi."

One of Huang's(1989) major arguments for treating existential "you"(have) in Mandarin as an auxiliary verb is that, similar to other canonical auxiliary verbs like "hui"(will) and "ying gai"(should), existential "you"(have) cannot take an aspect marker. This is also true for the existential "yau"(have) in Cantonese as seen from (100).

(100) yau (have) { *jo / ASP / *gwo / ASP } { fuk / CL } waa (picture) gwaa (hang) jo (ASP) hai (at) cheung (wall) seung min (top/on)

"There is a picture hanging on the wall."

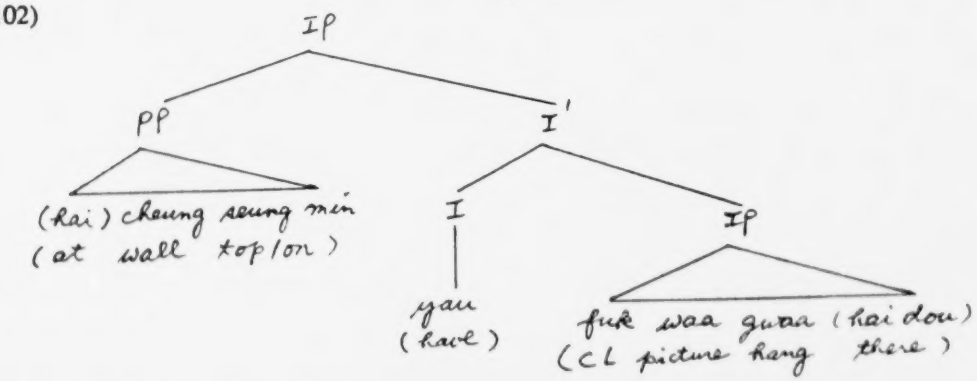
So I also assume that (100) has an underlying structure similar to (98b).

This kind of sentences in Cantonese also allows LPs to appear in the sentence-initial position. (101) is a counterpart of (100) and they both have the same truth-value in meaning.

(101)	(hai)	cheung	seung min	yau	fuk	waa	gwaa	*(hai dou)
	at	wall	top/on	have	CL	picture	hang	there

The noticeable thing in (101) is that the proform "hai dou"(there) may also co-exist with the sentence-initial LP(see discussion in section IV (B),Part 1). Therefore, we can once more hypothesize that the LP in (101) comes from the postverbal complement position via movement. The structural representation in (102) illustrates the movement process.

(102)



There are in fact several arguments in favour of this hypothesis. First, Huang(1989) argues that existential "you"(have) in Mandarin subcategorizes for an internal argument which appears as a complement in the D-structure. I assume that this proposal can be carried over to the Cantonese case. This semantic classification of "yau"(have) makes it equivalent to unaccusative verbs like "fan"(lie), "kei"(stand) and "cho"(sit) which allow locative inversion as shown in (1-10). (Unaccusative verbs also subcategorize for internal arguments only.) The movement hypothesis for existential sentences like (102) is congruent to what this paper has been proposing all along.

Second, the sentence-initial LP in (101) can pass all the subjecthood tests that have been invoked in Part 1. For ease of presentation, we only show the "sentence-adjunct-placement" and the "subject-raising" tests in the following.

(103)a.	hou ho neng	(hai)	cheung	seung min	yau	fuk	waa
	probably	at	wall	top/on	have	CL	picture
	gua	*(hai dou)					
	hang	there					

"Probably, there is a picture hanging on the wall."

b.	(hai)	cheung	seung min	hou chi	yau	fuk	waa
	at	wall	top/on	seem	have	CL	picture
	gwaa	*(hai dou)					
	hang	there					

"It seems that there is a picture hanging on the wall."

(101) can also participate in SuperRaising.

(104)	(hai)	cheung	seung min	hou chi	[pro]	waa	t
	at	wall	top/on	seem	EC	say	
	yau	fuk	waa	gwaa	*(hai dou)		
	have	CL	picture	hang	there		

"It seems that somebody says that there is a picture hanging on the wall."

(Notice that "hai dou"(there) in (103) and (104) are obligatory.)

So the locative inversion analysis can capture the similarities between the locative existential sentences (as in (101)) and the typical Locative Inversion sentences (as in (1-10)).

There are two more extensions of the movement analysis that I should mention. One is the possibility of moving an adjunct LP to the subject [SPEC, IP] position in an existential sentence. (105a) has a counterpart (105b).

(105)a.	yau	yan	(hai	uk	leui min)	tiu mou
	have	people	at	house	inside	dance

"There are people dancing inside the house."

b.	(hai)	uk	leui min	yau	yan	(hai dou)	tiu mou
	at	house	inside	have	people	there	dance

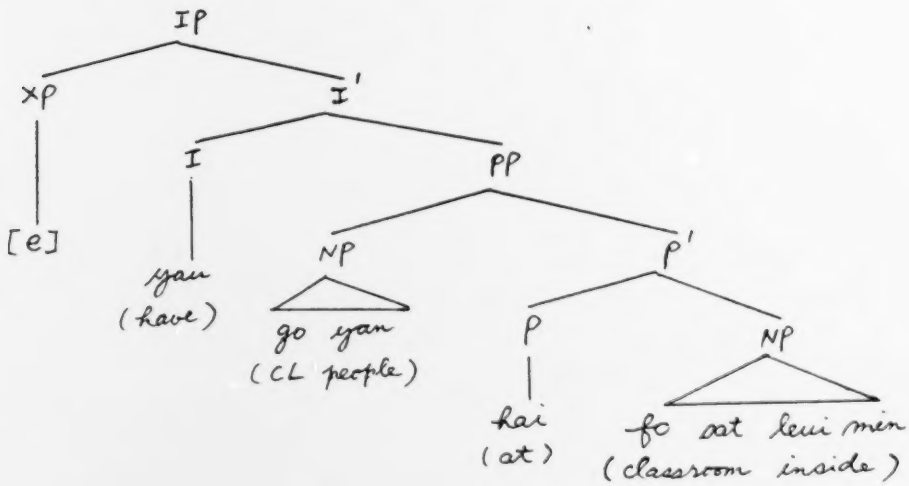
The LP in (105a) is an adjunct basically because of its optional nature. But it can still be moved to the sentence-initial (subject) position as what appears in (105b). The initial LP in this case is a subject since it can pass all the subjecthood tests mentioned before. Thus I conclude that locative inversion in Cantonese can also be an A'-movement(moving an XP from an A' position to an A position).

The other extension that deserves attention is the possibility of moving a PP predicate in locative inversion. Sentence (106a) has an underlying structure like (106b).

(106)a. yau go yan hai fo sat leui min
have CL people at classroom inside

"There is a man inside the classroom."

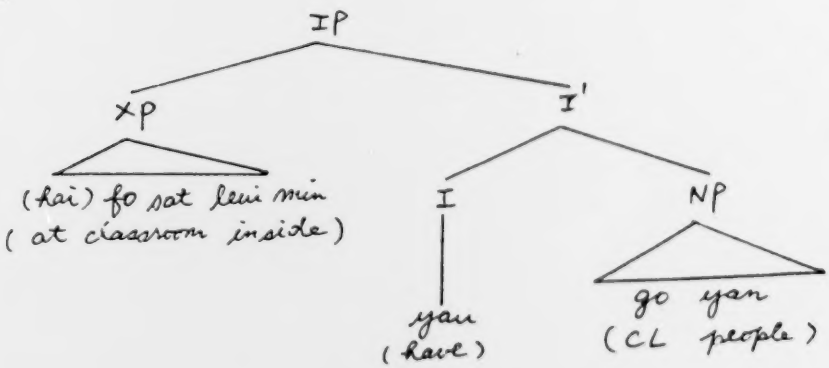
b.



The whole PP can be raised to the subject position becoming (107).

(107)a. (hai) fo sat leui min yau go yan (hai dou)
at classroom inside have CL man there

b.



Again, the sentence-initial LP in (107) can pass all the subjecthood tests mentioned in Part 1.

This analysis is similar to what Freeze(1991) proposes for treating crosslinguistic "have"-structures like (108) as locative sentences.

(108) a. English

I have a needle (on me). (Freeze, p.53)

b. Russian

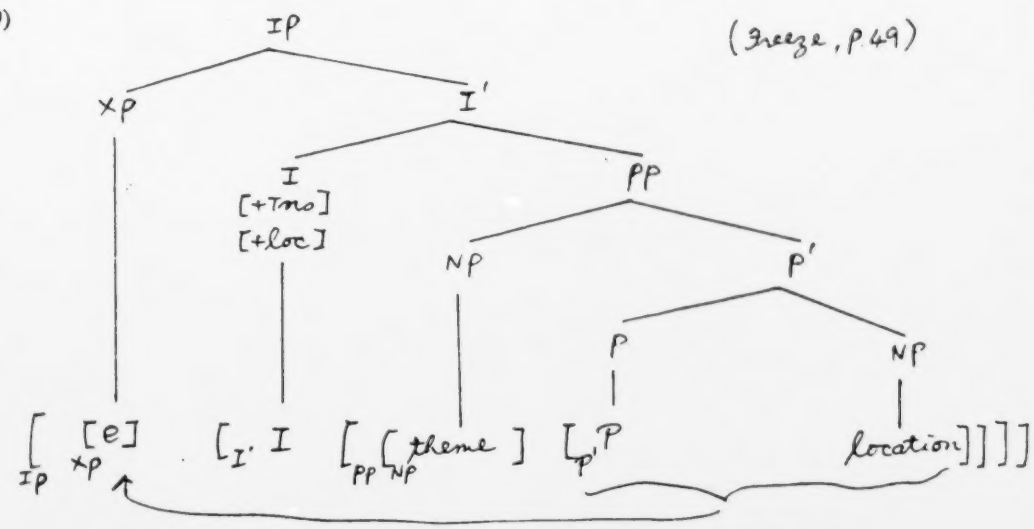
u menja est sestra
at I-GEN COP sister-NOM
[+Loc]
"I have a sister." (Freeze's (55b), p.46)

c. Finnish

poyda-lla on kyna
table-on COP pencil
[+Loc]
"There is a pencil on the table." (Freeze's (56a),p.46)

The "have" subjects in (108) are all regarded by Freeze as locations and the sentences all have a similar underlying representation like (109) which is comparable to (106b).

(109)



In this case, the locative argument "P'" is moved to the subject position in S-structure, leaving its specifier , i.e. NP, in situ.

Although the proposal here fits in with Freeze's crosslinguistic analysis, it differs widely from what Huang(1989) proposes for similar sentences in Mandarin.

Huang(1989) suggests that Mandarin sentences like (110) should belong to the possessive type instead of the existential type.

(110)	jiao shi	li	you	(zhou)	yi / one / zhe / this		ban	shu	ma?
	classroom	inside	have	ASP			CL	book	PART

"Is there / *this a book inside the classroom?"

Even though this suggestion seems odd because of the possessive relation(that in (110), "the classroom owns a book"), he nevertheless supports his argument by saying that the "you"(have) in this case is a full-verb(rather than an auxiliary verb as in the existential sentences) because it can take an apsect marker. By asserting that (110) belongs to the possessive type, he can also explain why a definite NP("zhe yi ban shu"(this book)) can appear after "you"(have), which is prohibited in existential sentences. Huang(1987,1989) also insists that sentence-initial LPs like the one in (110) are base-generated NP. However, the analysis in this section suggests a very different treatment of the subject LPs of the "yau"(have) sentences in Cantonese. I hypothesize that they are not base-generated but they come from either the postverbal complement position or the adjunct position. This movement analysis is only a subset of the general process Locative Inversion that operates extensively in Cantonese.

IV. Summary and Conclusion

The first part of the paper has showed that Locative Inversion sentences like (1-10) are derived by a movement process. The LPs of these sentences are claimed to originate in the postverbal complement position in the D-structure, but move to the subject position in S-structure. I begin the discussion by adducing several pieces of evidence to support the subjecthood of the LPs in the surface form. First, they exhibit at least three major characteristics that differentiate them from ordinary topics. Second, they assume a position in the surface structure that precedes the auxiliary verbs and sentence adverbials. Third, they can undergo subject-to-subject raising. The next task I do is to justify the proposal that the LPs in (1-10) move from the postverbal complement position to the subject position. I first show that the verbs in the Locative Inversion sentences in (1-10) are unaccusative in nature. Second, I demonstrate the relative distribution and cooccurrence restrictions between the sentence-initial LPs and their coreferent proform "hai dou"(there). Their distribution properties justify the claim that the sentence-initial LPs are a result of the movement operation and the proform "hai dou"(there), which is optional, is some kind of residue coreferent to the LPs. The argument that the LPs appear as postverbal complements in the D-structure is reinforced by the fact that when they

appear in the postverbal position in the surface form, they are obligatory and receive a locative θ-role from the verb. The third task I attempt is to show that some Locative Inversion sentences like (2,7,& 8), which contain verbs like "gwaa"(hang), "lim" (paste) and "se"(write), can acquire an accusative reading in other contexts. This is particularly obvious if these sentences appear as part of a discourse and the agents are omitted to avoid repetition since they are mentioned previously . In this case, these accusative sentences in D-structure will contain a "pro" under the [SPEC, IP]. The fourth task I tackle is to contrast the θ-role assignment and Case-assignment of Cantonese with those of Mandarin. I also justify that PPs in Cantonese, such as sentence-initial LPs, can receive Case.

The second part of the paper is designed to tackle three tasks. At the outset, I strengthen the proposal that the sentence-initial LPs in (1) and (2) are also arguments(complements) when they are in D-structure. The strategy I use is to first compare the extraction behaviour between the postverbal LPs in accusative sentences(like(56)) and the adjunct-like duration expressions. From their difference in extraction behaviour and based on Rizzi's theory of Relativized Minimality, I can reaffirm that postverbal LPs must be arguments(complements). Since I have already argued that these LPs of the accusative sentences are the same kind of entity as those LPs of the Locative Inversion sentences in D-structure, the latter must also be arguments too. The next task I deal with is to reinforce the subjecthood of the sentence-initial LPs by claiming that they also participate in SuperRaising. One significant observation is that the raising of the LPs across another lexical subject is blocked, but the raising of the LPs across a "pro" is allowed. The third task I undertake is to extend the movement analysis in Part 1 to the type of existential "yau"(have) sentences in Cantonese that begin with a LP. These sentences are also claimed to have undergone locative inversion and the sentence-initial LPs may come from the postverbal complement position or the preverbal adjunct position.

As a whole, the investigation in this paper has come up with the following generalizations:

(i) The Locative Inversion phenomenon in Cantonese is widespread and movement is involved to front the LPs to the subject(sentence-initial) position. In the majority of cases, the LPs are extracted from the postverbal complement position. But it is also possible to front a preverbal adjunct LP in an existential "yau"(have) sentence.

(ii) Since the LPs are PPs and they are moved into the [SPEC, IP] position in locative inversion, this suggests that Cantonese PPs can be assigned Case in this particular context.

(iii) Because of the proposal of movement analysis in Locative Inversion, I have argued that Cantonese word order is SVO at both D- and S-structure.

(iv) In examining the SuperRaising characteristics of the sentence-initial LPs in Locative Inversion sentences, I come to the conclusion that "pro"(an A-specifier) in Cantonese will not intervene in an A-chain and block the related movement, unlike what is predicted by the theory of Relativized Minimality.

For further research, it will be interesting to look into the relation between locative inversion and syntactic processes like passivization and relativization. The study in this paper also shows that it may be a fruitful task to further investigate the issue of treating the negation marker "m"(not) in Cantonese as a spec of VP. In analyzing the SuperRaising phenomenon of the Locative Inversion sentences, I find that in Cantonese, it is possible to extract an element across "pro"(an A-specifier at the [SPEC, IP]) in an A-movement. This looks like a counterexample to the theory of Relativized Minimality. Further research into other kinds of A-movement, like passivization, may help to reconfirm this preliminary generalization.

NOTES

*I would like to thank Professor S.Y. Kuroda for reminding me to work on my native language Cantonese, as well as his guidance and challenges. His suggestions directly inspired some of the ideas in this paper. I am grateful to Professor Matthew Chen for his careful reading of an earlier draft of this paper and his critical comments. I also thank Dr. Robert Kluender for agreeing to be a reader of this paper and his comments. I appreciate Raul Aranovich's enthusiasm in discussing the theory of Relativized Minimality with me. I am indebted to the anonymous reviewer for pointing out the problem in one of my arguments in the earlier draft. I am also indebted to my wife, Anita Hung, and my friends at San Diego for testing the data in this paper.

1. By "logical subject", I refer to the thematic argument of a verb that can be a surface subject in the unmarked case. The following sentence

yau go yan fan hai chong seung min
have CL people lie at bed top/on
"There is a man lying on the bed."

is considered as an unmarked case, where the "logical subject" is "go yan"(a man). Example (1) on page 1 is the marked counterpart of the sentence above and the "logical subject" stays in the postverbal position after locative inversion.

2. The transliteration of the Cantonese words(characters) in this paper is based on the Yale system, but tones are not shown. The following is a list of the transliteration symbols and their IPA equivalents(in brackets).

b(p) d(t) g(k) p(p') t(t') k(k') l(l) m(m) n(n) ng(n) f(f)
h(h) s(s) j(ts) ch(ts') gw(kw) kw(k'w) w(w) y(j)
a(a) ai(ai) au(au) aa(a:) aai(a:i) aau(a:u) e(ɛ) ei(ei) eu(œ)
i(i) iu(iu) o(ɔ:) ou(ou) oi(ɔi) u(u) ui(ui) eui(œy) yu(y)

3. Abbreviations

ASP=aspect marker CL=classifier EC=empty category DEM=demonstrative determiner
MOD=modifier PART=particle PM=passive marker POSS=possessive marker

4. I assume that the verb "lei mai"(hide) has two readings, both unaccusative and unergative. In sentence (6), it is an unaccusative verb and it takes an argument that bears the theme/patient role and which occupies the object position in the D-structure. On the other hand, if it occurs as unergative, then it will take an argument that bears an agent role and occupies the subject position in the D- and S-structure.

5. Thanks go to Phil Lesourd for suggesting to me the use of the term "sentence adjuncts".

6. I am indebted to Prof. S.Y. Kuroda for this idea.

7. Throughout this paper, I will assume that "hou chi"(likely/seem) and "hou ho neng"(possibly) are raising predicates in Cantonese. This assumption is based on the fact that these expressions behave similarly to their Mandarin counterparts which are affirmed to be raising predicates by Hou(1977), Li(1990) and Zhou(1990).

8. In the analysis that follows, I will show that the NP "hou do sai lou jai"(many children) occurs in the object position in the D-structure. (39a) is a result of moving the NP to the subject position in the S-structure. In (39b), the LP is moved to the surface subject position instead. That is why I call the NP in this case a potential subject. For the idea of "logical subject", please see note (1) above.

9. The assumption that ergative verbs in Mandarin Chinese can assign Case

to their NP complements deviates materially from Burzio's idea of ergative verbs which are claimed to be unable to assign Case. For evidence supporting the Chinese assumption, the reader is referred to Li(1990) and Zhou(1990).

10. See note (7) above.

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